



Curriculum Outdoors

Curricular Area: Sciences Biodiversity and interdependence



E&O:

I can explore examples of food chains and show an appreciation of how animals and plants depend on each other for food. SCN 1-02a

I can use my knowledge of the interactions and energy flow between plants and animals in ecosystems, food chains and webs. I have contributed to the design or conservation of a wildlife area. SCN 2-02a

Learning Outcome:

Will learn that trees are important part of a group or system of living things dependent on each other.



Resources Needed

Interactive whiteboard
Outdoor space
Bean bag (for Sparrow Hawk game)

How do Ecosystems Work? film
<https://www.bbc.co.uk/bitesize/topics/zxfrwmn/articles/z6n3gwx>
What is a Food Chain? film and quiz
<https://www.bbc.co.uk/bitesize/topics/zxfrwmn/articles/zhjxt39>

Instructions For the Game of Sparrow Hawk:

Choose a person to be the sparrow hawk. The rest of the group space out and stand still as trees. On the shout of 'go' bird (beanbag) is thrown at random from one tree to another. The sparrow hawk tries to catch it. If the sparrow hawk catches the bird it replaces the tree. Try using more than one 'bird'.

For teachers, information on sparrow hawk
<https://www.google.com/search?q=sparrow+hawk+scotland&og=sparrow+hawk&aqs=chrome.2.69i57j46i433j0i0i20i263j0l4.6407j0j7&sourceid=chrome&ie=UTF-8>

Instructions for Food Chain Activity

<https://blogs.glowscotland.org.uk/ea/public/learningoutdoorssupportteam/uploads/sites/11891/2020/04/14084950/PLAY-LEARN-AND-HAVE-FUN-1.pdf>

Activity

Ecosystem and Food chain Investigations

- Indoors, watch ecosystem film. Ask pupils to describe the role of trees in a garden/playground/park/woodland ecosystem. What do they provide, what habitats, what food, can we list creatures and growing things that rely on trees (possible answers might be birds, squirrels, spiders, beetles, fungi, lichen)?
- Show food chain film explaining that looking at food chains is one way to look closely at how different living things rely on each other.
- Outdoors, visit a tree in the grounds or at the boundary. Does the tree provide any of what was described after seeing the film?
- Outdoors, play a game of Sparrow Hawk (see Resources Needed). Ask pupils to describe the role trees play in the life of sparrow hawks and of other birds. Encourage pupils to teach others and to play the game at break times.
- Take a tour of the school grounds stopping a spaces where wildlife (no matter how small) is found. Pupils suggest ways that different plants (or creatures associated with them) are part of an ecosystem.
- Play *Food Chain* from *Play, Learn Have, Fun* (see Resources Needed) – focus on trees and woodland ecosystems and use knowledge gained so far.

Assessment

- Pupils name creatures that are dependent on trees.
- Pupils identify producers and consumers that are in the school grounds.
- Pupils can suggest plants that rely on trees.
- Pupils make contributions to the game of *Food Chain*

Suggestions for Further Activities

Complete a survey of biodiversity

<https://outdoorlearningdirectory.com/index.php/news/deadgood-deadwood-survey/>

Research

In small groups, research a wild creature known to live in the local area (eg common birds, mice, shrews, badgers, hedgehogs). Which rely on trees or wildlife or habitats associated with trees? Which can we attract to our space and can we explain why this would benefit the school?

Invent games Use *Woodland Web* game cards (see *Play, Learn, Have Fun* above)to create own games – e.g. Top Trumps

Interpretation points – signs, QR codes, posters visible to visitors and wider school community explaining the value of specific points of biodiversity in school grounds.